

Factoring Quest PRACTICE

Expectation	Level
C3 - solve problems involving polynomial and simple rational equations graphically and algebraically;	

1.) Factor fully

a. $f(x) = 15x^2 - 7x - 2$

b. $f(x) = 2x^3 - 9x^2 + 4x + 15$

c. $f(x) = 6x^3 + 35x^2 - 8x - 12$

2.) Solve $(8x^4 + x^3 - 4x^2 - 5x - 9) \div (x - 2)$ using **LONG DIVISION**

3.) Solve $(x^4 + 9x^3 - 3x^2 - 7x - 1) \div (x - 3)$ using **SYNTHETIC DIVISION**

4.) When $-2x^4 - x^3 + 4x^2 - 7x - a$ is divided by $x - 3$, the remainder is 4. Find **a**.